



<b>Contract No.</b> C-9385	<b>Station</b> LW480+21to 523+28	<b>Mile/Line:</b> LW	<b>C/S</b>
<b>Staked by</b> N/A	<b>Date</b>	<b>Work Started Date</b> 10/7/2019	<b>Work Completed Date</b>
<b>Calculated by</b> Tony Madison	<b>Date</b> 8/11/2020	<b>Checked by</b> Mark Lee	<b>Date</b> 9/14/2020
		<b>Inspector</b> Tony Madison	<b>Date</b> 8/11/20

## **Bid Item 044**

### **TIE BAR WITH DRILL HOLE**

Group # 1  
Each (EACH)  
Estimate # 21  
\$/Unit: \$18.00 - Round to nearest Tenth

#### **Date, Station and Quantity**

#### **Drilled Holes for Tie Bars**

##### **08/11/2020**

Drilled holes LW 480+21 to LW 499+35.....1,914 LF.....700 holes  
**700.0** **DAYS TOTAL = 700.0**  
**Holes Drilled**

##### **08/12/2020**

Drilled holes LW 499+35 to LW 519+22.....1,987 LF.....732 holes  
**732.0** **DAYS TOTAL = 732.0**  
**Holes Drilled**

##### **08/13/2020**

Drilled holes LW 519+22 to LW 523+28.....406 LF.....153 holes  
**153.0** **DAYS TOTAL = 153.0**  
**Holes Drilled**

**Total Holes Drilled = 1585.0 Holes**

#### **Tie Bar Installation**

##### **08/18/2020**

Tie Bars Installed LW 480+21 to LW 505+30  
**DAYS TOTAL = 928.0 Tie Bars Installed**

**08/19/2020**

Tie Bars Installed LW 505+30 to LW 518+64

**DAYS TOTAL = 510.0 Tie Bars Installed**

**08/21/2020**

Tie Bars Installed LW 518+64 to LW 523+28

**DAYS TOTAL = 147.0 Tie Bars Installed**

**Total Tie Bars Installed = 928.0 + 510.0 + 147.0 = 1,585.0 Bars**

**Epoxy used for Tie Bar Installation**

**08/18/2020**

Epoxy Used = Gals.

1,585 holes

3/4 inch diam. by 15 inches deep = 6.63 cubic inches/hole x 1,585 = 10,508.55 Cubic Inches

5/8 inch diam. rebars @ 15 inches = 4.60 cubic inches/inserted rod x 1,585 = 7,291.00 Cubic Inches

Void = 10,508.55 CI - 7,291.00 CI = 3,217.55 CI x 1.025 added voids due to drill = 3,297.98 CI

1 Gallon = 231 Cubic Inches

3,297.98 CI x 1 Gal. / 231 CI = 14.25 Gals.

**Total Epoxy Used = 14.25 Gallons**

**OK TO PAY 1585.0 EACH GROUP 01**

Hole and Bars were visually inspected and counted by Tony Madison.

Epoxy application and bar installation inspected by Tony Madison

Item Num	Material Brand Name/Model Type	Manufacturer	Brand Name/Model Type	RAMS/QPL Ref. No.	Appr/Acc Code	Basis of Accept
044.01	Tie Bars for PCCP	Jc Supply & Manufacturing	Epoxy Coated Tire Bars	QPL-0015		/ Manufacturer's Certification of Compliance with Certified Mill Test Reports each shipment
		Adhesived Technology	Ultra Bond 1	QPL-0014		

044.01.01	Epoxy Bonding Agent Type I							/	Satisfactory test report from State Materials Laboratory		
Item Num	Item Description	Grp	Date Work Complete	Unit	Quantity	Ledger Entry No.	Posted By Init.	Posted By Date	Checked By Init.	Checked By Date	Est. No.
0044	TIE BAR WITH DRILL HOLE	01	8/31/2020	EACH	1585.0	474	MEL	09/15/20			21

**Attachments**

 File Attachment

DOT Form IP 422-635ER EF  
Revised 4/2009